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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,478	06/26/2001	Brian P. Stokes	NUTFIELD 01.01	9389

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EXAMINER

LAM, THANH

ART UNIT PAPER NUMBER

2834

DATE MAILED: 09/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/891,478**

Applicant(s)  
**Stokes**

Examiner  
**Thanh Lam**

Art Unit  
**2834**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

Art Unit: 2834

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Molnar.

Regarding claim 1 and 22, Molnar discloses a torque motor comprising: a stator comprising a sleeve (16) with conductive coils (18) disposed thereon, the stator defining a rotor opening; and a rotor (14) disposed in the rotor opening, the rotor comprising a magnet (26) disposed on a shaft (28), the sleeve being shorter than the magnet and the coils including turn around zones beyond respective ends of the sleeve.

Regarding claim 2, Molnar discloses the magnet comprises a substantially permanent magnetic material.

Regarding claim 3, Molnar discloses the magnet comprises two poles on opposite sides of the rotor's rotational axis.

Regarding claim 4, Molnar discloses the shaft and the magnet are aligned on the rotor's rotational axis.

Art Unit: 2834

Regarding claim 5, Molnar discloses the magnet comprises a rare earth magnet.

Regarding claim 6, Molnar discloses the sleeve is cylindrical.

Regarding claim 7, Molnar discloses the sleeve comprises material selected from the group consisting of. iron, steel, cobalt, or nickel.

Regarding claim 8, Molnar discloses the stator further comprises a magnetic permeable outer housing.

Regarding claim 9, Molnar discloses the outer housing comprises annular slots to accept and hold the coil turn around zones.

Regarding claim 10, Molnar discloses the turn around zones are substantially perpendicular to the sleeve.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montagu in view of Molnar.

Art Unit: 2834

Regarding claim 11, Montagu discloses an optical scanner comprising: an optical element configured to direct light from a light source; a torque motor comprising a stator and a rotor; the stator comprising a sleeve with conductive coils disposed thereon, the stator defining a rotor opening; and the rotor disposed in the rotor opening, the rotor comprising a magnet disposed on a shaft, the coils including turn around zones beyond respective ends of the sleeve. However, Montagu does not disclose the sleeve being shorter than the magnet.

Molnar discloses the sleeve (16) being shorter than the magnet (26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify and rearrange the rotor of Montagu to fix the rotor and the sleeve as taught by Molnar in order to improve the flux density of the motor.

Regarding claim 12, the proposal in combination of Montagu and Molnar disclose the optical element comprises material selected from the group consisting of mirror, waveplate, and lens.

Regarding claim 13, the proposal in combination of Montagu and Molnar disclose the magnet comprises a substantially permanent magnetic material.

Regarding claim 14, the proposal in combination of Montagu and Molnar disclose the magnet comprises two poles on opposite side of the rotational axis of the rotor.

Regarding claim 15, the proposal in combination of Montagu and Molnar disclose the shaft and the magnet are aligned on the rotor's rotational axis.

Art Unit: 2834

Regarding claim 16, the proposal in combination of Montagu and Molnar disclose the magnet comprises a rare earth magnet.

Regarding claim 17, the proposal in combination of Montagu and Molnar disclose the sleeve is cylindrical.

Regarding claim 18, the proposal in combination of Montagu and Molnar disclose the sleeve comprises material selected from the group consisting of- iron, steel, cobalt, or nickel.

Regarding claim 19, the proposal in combination of Montagu and Molnar disclose the stator further comprises a magnetic permeable outer housing.

Regarding claim 20, the proposal in combination of Montagu and Molnar disclose the magnetic permeable outer housing comprises annular slots to accept and hold the coil turn around zones.

Regarding claim 21, the proposal in combination of Montagu and Molnar disclose the turn around zones are substantially perpendicular to the sleeve.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 1449.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Lam whose telephone number is (703) 308-7626. The fax phone number for this Group is (703) 305-3432.

Application/Control Number: 09891478

Page 6

Art Unit: 2834

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0656.

A handwritten signature in black ink, appearing to read 'Thanh Lam', with a long horizontal stroke extending to the left.

Thanh Lam

Patent Examiner

sept. 6, 2002